

New NVIDIA Fermi-Class Quadro Launches the Era of Computational Visualization

First GPUs to Combine ECC, Double Precision Floating Point and Massive Geometry Processing, Delivering Five Times Faster 3D Performance, Eight Times Faster Simulation Performance and Immersive Stereoscopic 3D

LOS ANGELES, CA -- SIGGRAPH 2010 -- NVIDIA (Booth #717) today launched the era of the 'computational visualization workstation' for designers, engineers, researchers and animators by introducing its [Quadro® graphics processing units](#) (GPUs) based on NVIDIA® Fermi architecture, and by also introducing [the new NVIDIA 3D Vision™ Pro solution](#). The new Quadro GPUs deliver performance that is up to five times faster for 3D applications and up to eight times faster for computational simulation(1), shattering previous benchmarks.

The NVIDIA Quadro Plex 7000 array, and Quadro 6000, Quadro 5000 and Quadro 4000 GPUs feature the new NVIDIA® Scalable Geometry Engines and leverage [NVIDIA Application Acceleration Engines \(AXE\)](#) to enable the world's fastest performance across a broad range of CAD, DCC and visualization applications(2). Rated at an unheard of 1.3 billion triangles per second in raw performance(3), the Quadro 6000 enables users to interactively work with models and scenes that are five times more complex than ever before.

"For over a decade Quadro has been the choice of professionals around the world. We've also built Engines like AXE to enable the creation of next-gen applications," said Jeff Brown, general manager, Professional Solutions Group, NVIDIA. "When you couple these technologies with our Fermi architecture, the result is a new Quadro family that's exponentially better than anything the market has ever seen."

Redesigned from the Ground Up to Accelerate Entire Workflows

Combining high performance computing capabilities with advanced visualization, the new Quadro GPU is the world's first professional graphics solution with Error Correction Codes (ECC) memory and fast, IEEE double precision floating point performance. These are intended for applications demanding the highest accuracy, such as medical imaging, finite element analysis and computational fluid dynamics.

"In high-end visual effects development, fast iteration is essential," said Olivier Maury, research and development engineer, Industrial Light & Magic (ILM). "By using NVIDIA Quadro GPUs, we are seeing up to eight iterations each day of complex fire, dust and air simulations, representing speed improvements of ten to fifteen times. NVIDIA CUDA and Quadro GPUs have entirely changed the way we solve complex visual effects challenges."

The new Quadro GPUs are built on industry standards, including OpenGL 4.1, DirectX 11, DirectCompute and OpenCL. In addition, Quadro leverages technologies that are unique to NVIDIA -- such as the company's portfolio of Application Acceleration Engines (AXE) and [NVIDIA CUDA™](#) parallel processing architecture. The result is that software developers are able to create and deliver the next-generation of professional applications that incorporate compute-intensive tasks. Among these tasks are ray tracing, physics simulation, computational fluid dynamics and real-time video effects processing.

"NVIDIA isn't just working on building better graphics hardware, but the software tools needed to drive the needed advancements that are now changing the industry," said Rob Enderle, principal analyst, Enderle Group. "NVIDIA was committed to building tool after tool this past decade in order to drive the market where they needed it to go, and their efforts are paying off."

The new Quadro professional solutions introduced today include:

Scalable Visualization Systems:

Quadro Plex 7000, with 12 GB (total) of memory and 896 CUDA cores

Board and Desktop Workstation Solutions:

Quadro 6000, with 6 GB of GDDR5 memory and 448 CUDA cores

Quadro 5000, with 2.5 GB of GDDR5 memory and 352 CUDA cores

Quadro 4000, with 2 GB of GDDR5 memory and 256 CUDA cores

Mobile Workstations:

Quadro 5000M, mobile workstation GPU with 2 GB of GDDR5 memory and 320 CUDA cores

Additionally, all Quadro products are compatible with the new NVIDIA 3D Vision Pro active shutter-glasses solution, [also announced today](#), for the highest-quality stereoscopic 3D immersive experience.

Widespread Adoption

Workstation OEMs and System Integrators, including [Dell](#), [HP](#), [Lenovo](#), [BOXX Technologies](#) and [NextComputing](#), are among those that are offering the newest Quadro solutions. Quadro products are also available from value added resellers through master distributors [PNY Technologies](#) in North America and Europe, [Leadtek](#) in Asia Pacific, and [ELSA](#) in Japan.

"As the first professional-class GPUs to integrate high performance computing with advanced visualization, NVIDIA Quadro combined with Dell Precision workstations are poised to transform workflows," said Greg Weir, senior manager, Dell Precision Workstations Product and ISV Marketing. "With this technology, we are enabling our design, research, animation and film customers to deliver higher quality results in less time."

"NVIDIA continues to push the envelope on delivering cutting-edge graphics solutions," said Rob Herman, director of product marketing, worldwide ThinkStation Business Unit, Lenovo. "We're actively incorporating these latest graphics into our newly upgraded ThinkStation C20 and D20 workstations to deliver innovative, 'visual supercomputers' to our customers."

Availability and Pricing

The Quadro 4000 (\$1,199 MSRP, USD) and Quadro 5000 (\$2,249 MSRP, USD) are available immediately through all channels. The Quadro 6000 (\$4,999

MSRP, USD) and Quadro Plex 7000 (\$14,500 MSRP, USD) will be available this fall. Mobile workstations based on the Quadro 5000M will be available in the third quarter of 2010 from HP and Dell.

The newest Quadro solutions are being featured at SIGGRAPH 2010 in the NVIDIA booth, #717, South Hall, at the Los Angeles Convention Center, from July 27-29, 2010. To learn more, visit: www.nvidia.com/quadro. Follow NVIDIA Quadro on [YouTube](#), and Twitter: [@NVIDIAQuadro](#).

About NVIDIA

NVIDIA (NASDAQ: NVDA) awakened the world to the power of computer graphics when it invented the GPU in 1999. Since then, it has consistently set new standards in visual computing with breathtaking, interactive graphics available on devices ranging from tablets and portable media players to notebooks and workstations. NVIDIA's expertise in programmable GPUs has led to breakthroughs in parallel processing which make supercomputing inexpensive and widely accessible. The company holds more than 1,100 U.S. patents, including ones covering designs and insights which are fundamental to modern computing. For more information, see www.nvidia.com.

- (1) Based on Enight sub-tests within Viewperf 11 and Linpack performance comparison between CPU and CPU+GPU with various configurations.
- (2) Based on tests within Viewperf 11.
- (3) Based on GLperf, run by NVIDIA Performance Lab.

Certain statements in this press release including, but not limited to, statements as to: the benefits, features, impact and capabilities of NVIDIA Quadro GPUs based on the NVIDIA Fermi architecture, NVIDIA 3D Vision Pro solution and NVIDIA Application Acceleration Engines are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: development of more efficient or faster technology; design, manufacturing or software defects; the impact of technological development and competition; changes in consumer preferences and demands; customer adoption of different standards or our competitor's products; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission including its Form 10-Q for the fiscal period ended May 2, 2010. Copies of reports filed with the SEC are posted on NVIDIA's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

© 2010 NVIDIA Corporation. All rights reserved. NVIDIA, the NVIDIA logo, Quadro, CUDA, and 3D Vision, are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Other company and product names may be trademarks of the respective companies with which they are associated. Features, pricing, availability, and specifications are subject to change without notice.

About NVIDIA

Since 1993, [NVIDIA](#) (NASDAQ : NVDA) has pioneered the art and science of [visual computing](#). The company's technologies are transforming a world of displays into a world of interactive discovery — for everyone from gamers to scientists, and consumers to enterprise customers. More information at <http://nvidianews.nvidia.com/> and <http://blogs.nvidia.com/>.

© 2014 NVIDIA Corporation. All rights reserved. NVIDIA and the NVIDIA logo are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Other company and product names may be trademarks of the respective companies with which they are associated. Features, pricing, availability, and specifications are subject to change without notice.

Media Contacts

Mark Priscaro
(408) 486-2438
mpriscaro@nvidia.com